## PROFESSIONAL SERVICES AGREEMENT

## I. NAME OF PARTIES OF THE AGREEMENT

This Agreement, made and entered into this 15th day of September, 2008 by and between the City of Ankeny, Iowa, a municipal corporation, hereinafter called "OWNER" and Snyder & Associates, Inc., 2727 SW Snyder Blvd., Ankeny, Iowa 50023, a corporation, hereinafter called "ENGINEER" as follows:

#### II. NAME OF PROFESSIONAL SERVICE

The OWNER shall retain the ENGINEER to complete Professional Services for the preparation of a conceptual design of storm water improvements including topography, wetland delineation, geotechnical investigation, and final report for the Fourmile Creek Tributaries Watershed Assessment Project hereinafter called the "PROJECT".

# A. ASSIGNMENT OF PROJECT DIRECTOR

The ENGINEER shall assign Mark A. Land, P.E. to direct the PROJECT described in this Agreement.

#### B. CHANGES IN PROJECT DIRECTOR

The CITY has the right to approve or disapprove any proposed change from the individual named in Article II(A). The CITY shall be provided with a resume of any proposed substitute and shall be given the opportunity to interview that person prior to its decision to approve or disapprove.

#### III. SCOPE OF WORK

#### A. GENERAL

The ENGINEER shall provide Professional Services as required to complete the preparation and assembly of the PROJECT as named in Article II and as described hereinafter as follows:

1. The PROJECT is contained within the boundaries further described as:

<u>Tributary A</u> - Drainage channel from Interstate 35 westward to NE 18<sup>th</sup> Street crossing both Delaware Avenue and Trilein Drive.

<u>Tributary B</u> - Drainage channel from SE Delaware Avenue to SE 8<sup>th</sup> Street.

2. The ENGINEER will complete topographic survey, geotechnical investigation, wetland delineation, hydrologic and hydraulic analysis of existing and proposed conditions, conceptual design of storm water improvements, and final report for the proposed PROJECT.

## B. BASIC ENGINEERING SERVICES

The ENGINEER will provide the Basic Engineering Services as follows. Payment shall be made as specified in Article VI of this Agreement.

## 1. PROJECT ADMINISTRATION

The ENGINEER shall perform the following administrative services during the design of the PROJECT:

- a. Progress reports as requested to the OWNER.
- b. Monthly billing reports.
- c. Project coordination for engineering and coordination with the OWNER, design professionals, and utility companies.
- d. Project design review.
- e. Miscellaneous meetings to review progress, and attend informal meetings, Council meetings and Public Hearings.

## 2. TOPOGRAPHY SURVEY

- a. Site Features A topographic field survey will be performed of the above ground physical features including pavements, trees greater than 12" diameter, buildings with elevations at doorways that exit at grade, utility appurtenances etc. within the limits of the PROJECT. A survey corridor of approximately 30' on each side of the channel will be obtained, where permission is granted by the property owners. Survey is assumed to be completed in winter conditions with no leaves.
- b. Utilities The ENGINEER shall perform a level "B" utility survey as outlined in Attachment "A" of this agreement. The ENGINEER shall designate existing subsurface utilities implementing various subsurface locating procedures at critical locations identified during preliminary design. The locations of existing utilities shall be recorded to determine the extent of utility conflicts to help identify limits of utility relocations or provide information necessary to avoid conflicts. Additional work may be required to upgrade to level "A" during advanced states of design and that work would be

considered extra services as outlined in Article III.E - Extra Services.

# c. Right-of-way Survey

No right of way survey will be completed as a part of this scope. Available plat mapping will be utilized. Right of way survey would be considered extra services as outlined in Article III.E - Extra Services.

# d. Project Base Map Preparation

1. Coordinate System - The coordinate system that will be used will be based on the Iowa State Plane South Coordinate System with Iowa DOT adjustment factors both vertically and horizontally. Vertical Datum will be NAVD 88.

# e. Create Digital Terrain Model

- 1. Create break lines control of creation of contours in areas of edges of pavement, drainageways, structures, etc.
- 2. Load spot elevations and break lines to build the digital terrain model.
- 3. Surface display intelligent contours.
- 4. Surface evaluation and modification to approximate known existing conditions.
- 5. Input horizontal and vertical alignment.
- 6. Create plan and profiles, and cross sections (11"x17") of existing terrain that allows the use of GeoPak for design.

#### 3. PUBLIC MEETINGS

There will be two public meetings within this scope of services. The first meeting will be at the beginning of the project to outline the project scope to the property owners adjacent to the channel and solicit input on the nature of the problems in the drainageway. At that meeting a resource group of 10-12 members will be formed. Up to three resource group meetings will be held to review the status of the hydrologic and hydraulic modeling, examine possible alternatives, review conceptual designs, and to discuss final recommendations. This group will participate in the final public meeting to be held at the end of the project to outline the final recommendations and costs. The ENGINEER shall draft notification to property owners adjacent to the PROJECT for each meeting to be published by the CITY. The ENGINEER will prepare necessary display drawings to be used at the public and resource group meetings.

# 4. HYDROLOGIC AND HYDRAULIC MODELING

- a. Peak discharges for the 2, 5, 10, and 100 year flood events will be calculated for each tributary using available information from previously completed drainage reports and an analysis with SWMM. Flows will be calculated at NE 18<sup>th</sup> Street, NE Trilein Drive, and NE Delaware Avenue on Tributary A. Flows will be calculated at SE Delaware and SE 8<sup>th</sup> Street on Tributary B.
- b. The ENGINEER will review the watershed for potential development and adjust the discharges appropriately.
- c. A natural hydraulic model will be created for each tributary using HEC-RAS and will be consistent with FEMA's guidelines and specifications for the National Flood Insurance Program. These models will be obtained from FEMA if not available from the CITY. The flood profile, bed shear stress, and velocities for the 2, 5, 10, and 100 year will be used in the development of alternative concepts.
- d. A hydrologic and hydraulic report of the modeling results will be created and include the following items:
  - (a) Drainage area maps and hydrologic calculations.
  - (b) Hydraulic modeling assumptions and tabulated modeling results.
  - (c) Flood profiles of Tributary A and B throughout the project length.
  - (d) Tabulation of the first floor and lowest entry elevations of the existing houses along Tributary A and B.

#### CONCEPTUAL DESIGN PHASE

The ENGINEER will complete a conceptual design of storm water improvements based on alternatives developed through discussions with property owners, resource group members, City staff, and the Polk Soil and Water Conservation District staff. Work on this phase will include the development of three conceptual design alternatives to be reviewed with the resource group and City staff. This process will include an emphasis on natural options including vegetative slopes, riffle pools, buffer strips, and public education. A preliminary right of way needs assessment will also be included in this Phase.

## 6. SEDIMENT LOSS ANALYSIS

The ENGINEER will complete an evaluation of the sediment loss of the current channel. A comparison of the existing channel and the proposed conceptual design alternatives will be completed.

## 7. OPINION OF PROPABLE CONSTRUCTION COSTS

The ENGINEER shall prepare a statement of the total probable cost for the recommended conceptual design for each Tributary based upon the design developed. Statements of probable construction costs prepared by the ENGINEER represent the best judgment as a design professional familiar with the construction industry. It is recognized, however, that the ENGINEER has no control over the cost of labor, materials or equipment, over the Contractor's methods of determining bid prices, or over competitive bidding or market conditions. Accordingly, the ENGINEER does not guarantee that any actual cost will not vary from any cost estimate prepared by the ENGINEER.

#### 8. GEOTECHNICAL INVESTIGATION

The ENGINEER shall utilize the services of private testing laboratories for the soils investigation for the PROJECT. This work shall include up to 12 soil borings for Tributary A and 5 soil borings for Tributary B. The borings will be completed using hand-held auger and sampling equipment. The analysis will include soil classification, sieve and hydrometer testing, Atterberg Limits, and other soil data required to complete the conceptual design of the improvements.

#### WETLAND DELINEATION

The ENGINEER will conduct an onsite wetland delineation on the approximately 1.5 mile Tributary A and B. An Environmental Scientist will perform the wetland delineation in accordance with the ACOE 1987 Wetland Delineation Manual and provide a report which will include the findings of the delineation. Wetland boundaries will be field surveyed by the Environmental Scientist via a handheld GPS unit.

#### C. ADDITIONAL SERVICES

# 1. Changes in Scope of Services

The OWNER may request Additional Services from the ENGINEER not included in the Scope of Services as outlined. Additional Services may include, but not be limited to, expanding the scope of the PROJECT and work to be completed; requesting the development of various documents;

or requesting additional work items that increases the Engineering Services and corresponding costs. Additional Services shall be performed as requested in writing by the OWNER on an hourly basis in accordance with the current fiscal year Snyder & Associates, Inc. Standard Fee Schedule in affect at the time of actual performance. All services quoted on a lump sum basis shall be valid for one year from the contract date.

## IV. RESPONSIBILITY OF THE OWNER

At its own expense, the OWNER shall have the following responsibilities regarding the execution of the Contract by the ENGINEER.

# A. PROJECT OFFICER

The OWNER shall name a Project Officer to act as the OWNER's representative with respect to the work performed under this Agreement. All correspondence with OWNER relating to PROJECT shall be directed to the Project Officer and the Project Officer shall be invited to all progress meetings and other meetings called during the PROJECT.

# B. PROMPT RESPONSE

To prevent an unreasonable delay in the ENGINEER's work, the OWNER will examine all reports, drawings, specifications, and other documents and will provide authorizations in writing to the ENGINEER to proceed with work within a reasonable time period.

## C. PROJECT REQUIREMENTS

The OWNER shall furnish the following information for the PROJECT: Design and construction standards; PROJECT area topography and existing features and utilities; construction documents of projects within close proximity; known property locations and conditions; zoning or deed restrictions; approved Assessment method and formula; and permission for access to private property if necessary to perform work.

## V. WORK SCHEDULE

The PROJECT, from design through construction completion, shall be performed by the ENGINEER in accordance with a schedule mutually developed by the OWNER and ENGINEER. Generally, the schedule for the PROJECT is described as follows:

A. Assuming the Notice to Proceed is obtained on or above September 15, 2008, the initial public meeting will be held in October 2008. The final report will be transmitted by April 1, 2009.

B. The ENGINEER shall not be responsible for delays in the schedule which are beyond the ENGINEER's control.

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#### VI. COMPENSATION AND TERMS OF PAYMENT

The OWNER shall pay the ENGINEER in accordance with the terms and conditions of this Agreement.

#### A. BASIC SERVICES

As set forth in Article III (B) the engineering fee shall be on the basis of a lump sum fee of \$123,500.

<u>Item</u>	Lump Sum
	<u>Amount</u>
1. Project Administration	\$8,500
2. Topographic Survey	\$31,500
3. Public Meetings	\$15,000
4. Hydrologic and Hydraulic Modeling	\$18,500
5. Conceptual Design Phase	\$35,000
6. Sediment Loss Analysis	\$2,500
7. Opinion of Probable Const. Costs	\$2,500
8. Geotechnical Investigation	\$7,500
9. Wetland Delineation	\$2,500
	\$123,500

## B. ADDITIONAL SERVICES

As set forth in Article III (D), Additional Services shall be performed as requested in writing by the OWNER and shall be performed on an hourly basis shall be performed in accordance with the current fiscal year Snyder & Associates, Inc. Standard Fee Schedule in affect at the time of actual performance. All services quoted on a lump sum basis shall be valid for one year from the contract date.

#### VII. METHOD OF PAYMENT

- A. The ENGINEER shall submit billings for Basic, Construction and Additional Services to the OWNER on a thirty (30) day basis under separate cover and shall be paid by the OWNER within fourteen (14) days after approval by the City Council. The OWNER shall pay the ENGINEER a percentage of the total fee for each phase or a cost not to exceed the amount shown in accordance with the schedule shown below.
- B. Billings shall include sufficient documentation to explain the charges. All billings shall be accompanied by a Billings Information Report on a form provided to the ENGINEER by the OWNER.

#### VIII. TERMINATION OF AGREEMENT

The ENGINEER or OWNER may, after giving seven (7) days written notice to the other party, terminate this agreement and the ENGINEER shall be paid for services provided to the termination notice date, including reimbursable expenses due, plus termination expenses. Termination expenses are defined as reimbursable expenses directly attributed to the termination.

# IX. CONFLICT OF INTEREST

No elected official or employee of the OWNER who exercises any responsibilities in review, approval, or carrying out of this Agreement shall participate in any decision relating to this Agreement which affects his or her direct or indirect personal or financial interest.

#### X. ASSIGNABILITY

The ENGINEER shall not assign any interest in this Agreement and shall not transfer any interest in the same without the prior written consent of the OWNER.

## XI. TITLE TRANSFER

All drawings, specifications and other work products of the PROJECT are instruments of services for this PROJECT only and shall remain the property of the ENGINEER. The ENGINEER may deliver to the OWNER, at the OWNER's request, paper or electronic media copies of documents prepared in accordance with this Agreement. The OWNER may make hard copies or electronic copies of these documents for purposes supporting the intended use of the project. Any reuse or modification of the documents supplied by ENGINEER for purposes of the PROJECT, including electronic media will be at the recipient's risk and responsibility. Electronic media will be provided as is without warranty, and it shall be the OWNER'S responsibility to reconcile this electronic data with the paper plans, and that the paper plans shall be regarded as legal documents for this PROJECT.

#### XII. CONFIDENTIALITY

No reports, information, and/or data given to or prepared or assembled by the ENGINEER under this Agreement shall be made available to any individual or organization by the ENGINEER without prior written approval of the OWNER.

#### XIII. INSURANCE

The ENGINEER shall maintain insurance to protect the ENGINEER from claims under Workmen's Compensation Acts; claims due to personal injury or death of any employee or any other person; claims due to injury or destruction of property; and claims arising out of errors, omissions, or negligent acts for which the ENGINEER is legally liable. The amounts and extent of such insurance is as follows:

- 1. Professional Liability -
- 2. Vehicle Coverage -**Bodily Injury**
- 3. Workmen's Compensation -
- 4. General Liability -

- \$ 2,000,000 each claim; 2,000,000 aggregate
- \$ 1,000,000 combined single limit (each accident)
- \$ 100,000 each accident
- 1,000,000 each occurrence and 2,000,000

aggregate

#### XIV. ARBITRATION

Any controversy or claim arising out of this Agreement may, if both parties agree, be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association.

The cost of the arbitration, if any, will be divided equally between the OWNER and the ENGINEER.

#### ENGINEER'S RESPONSIBILITY XV.

The ENGINEER shall be responsible for the professional quality and technical accuracy of all services furnished by the ENGINEER under this Agreement, except for that work provided by OWNER. The ENGINEER shall, without additional compensation, correct or revise any error or deficiencies in his work. Approval of the OWNER of any such work shall not in any way relieve the ENGINEER of responsibility for the technical accuracy and adequacy of said services. The OWNER's review, approval or acceptance of, or payment for any of the services shall not be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.

#### XVI. COMPLETENESS OF THE AGREEMENT

This document contains all terms and conditions of this Agreement and any alteration shall be invalid unless made in writing, signed by both parties and incorporated as an There are no understandings, representations, or amendment to this Agreement. agreements, written or oral, other than those incorporated herein.

# XVII. ENGINEER'S CERTIFICATION OF REPORT

The ENGINEER shall place his certification on the Contract Documents, all in conformity with Chapter 114, Code of Iowa.

IN WITNESS WHEREOF, the parties have signed this Agreement as of the day and the year first above written.

ATTEST:	OWNER	
	Ву	
City Clerk	Mayor	
ATTEST:	ENGINEER SNYDER & ASSOCIATES, INC.	
	By	